

DETAILED ACTION

Response to Arguments

1. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the arrangements of slotted entities whether they be nozzle outlets or for another purpose not at the outlet of a conduit fall clearly within knowledge generally available to one of ordinary skill in the art. Further, as the art of Haruch is associated with that of a nozzle, its placement within Figure 5 does not differentiate it from being prior art when applied to the invention of the Applicant.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 11 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,664,733 to Lott.

As per claim 11, Lott discloses nozzle body inlet face (at 74), an outlet face (at 24), and an inlet flow axis passing through the inlet and outlet face (imagined), the nozzle having slots (50) going through the nozzle body, each slot having an axis (imaginary) wherein a first slot (any, shown in Figure 4) is intersected by each of the other slots and the slot center plane of any of the slots intersects the flow axis of the nozzle body. Further, Merriam-Webster Online, as in the action of November 15, 2007, defines intersect as: 1: to meet and cross at a point, or 2: to share a common area: overlap. By definition then, the center planes of any of the slots meet and cross the inflow axis at an included angle of between 0° and 30°, the result being 0°.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,098,896 to Haruch in view of U.S. Patent No. 5,664,733 to Lott.

Haruch teaches a nozzle body inlet face (at 26), an outlet face (at 22), and an inlet flow axis passing through the inlet and outlet face (imagined), the nozzle having slots (25, 25') going through the nozzle body, parts of the slots (26, 28) having slot axis

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(imagined) that are not parallel to the inlet flow axis of the body (see Figure 3). Haruch does not teach intersecting slots. Lott teaches slots (50) that intersect each other in a nozzle body. Additionally, as per claims 5 and 6, one of the slots of Haruch is intersected by each of the slots, and where a first and second as well as third and fourth slot intersect each other. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the nozzle slot geometry of Haruch with the intersecting nozzle slot geometry as taught by Lott in order to customize a spraying pattern.

Claims 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,664,733 to Lott.

The rejection of claim 12 above serves as the basis for the following. Lott does not teach slot intersecting at an angle of 0 and 15 degrees, however it would have been obvious to one having ordinary skill in the art at the time the invention was made to have duplicated the nozzle pattern of Lott in an axial direction to produce intersecting nozzles that would have an included angle of 0 and 15 degrees, intersecting at the inlet face of the nozzle body, as doing so would only require a duplication of parts, in this case nozzle orifices, and it would have been obvious to one having ordinary skill in the art at the time the invention was made to have increased the number of nozzle orifices, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. See *St. Regis paper Co. v. Bemis Co.*, 193 USPQ 8.

Conclusion

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES S. HOGAN whose telephone number is (571)272-4902. The examiner can normally be reached on Mon-Fri, 7:00a-4:00p EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571)272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. S. H./

Examiner, Art Unit 3752

/Len Tran/

Supervisory Patent Examiner, Art Unit 3752